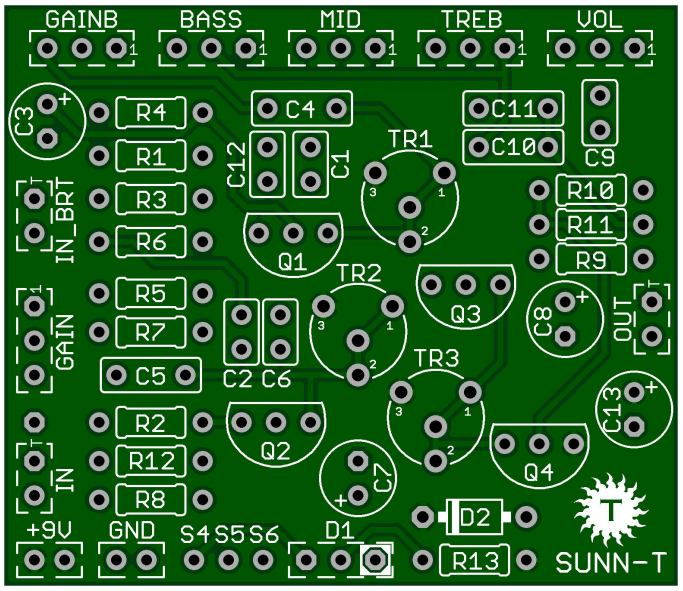
Sunn T

Ah! It's time for more NOSTALGIA! The old timers out there may remember some fantastic tones identifiable with the classic SUNN™ Model T amp. If you're too young to know about this, now you can recreate the sound of robust cleans and smooth chunky distortion that was a trademark of this famous amp. Unlike, the giant one knob gold pedal, which falsely claims to emulate the Model T our design is much more like the original. It has the same two channel configuration that lets you use either one or both! It's like having multiple sounds in one! You can pick from Bright, Normal, Both as well as Blend the two together by adjusting the amount of Gain on either of the Gain or Gain B potentiometers.

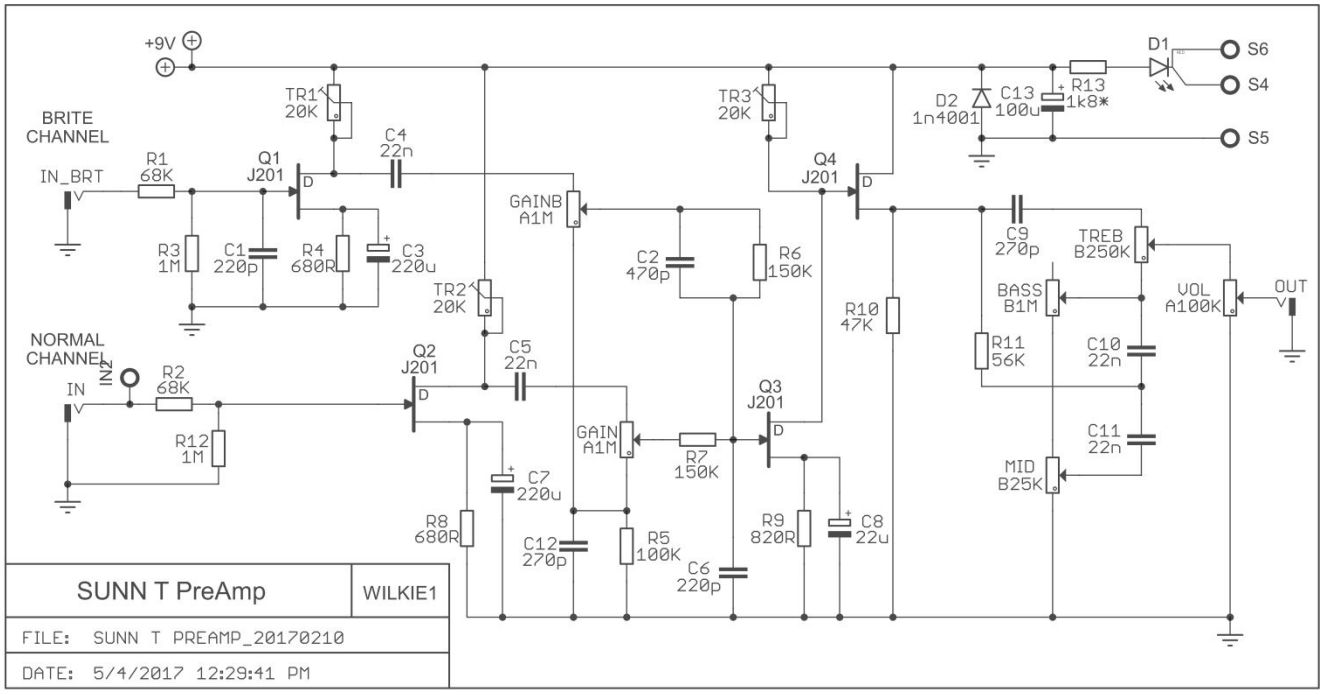


Board Dimensions (W x H) 1.95" x 1.69" or 49.53mm x 42.93mm
Board and Schematic designed by Bruce R. plus Wilkie1

Part	Value		Part	Value		Part	Value
R1	68K		**C1**	220p		**Vol**	A100K
R2	68K		**C2**	470p		**GAIN**	A1M
R3	1M		**C3**	220u		**GAIN B**	A1M
R4	680R		**C4**	22n		**BASS**	B1M
R5	100K		**C5**	22n		**MID**	B25K
R6	150K		**C6**	220p		**TREB**	B250k
R7	150K		**C7**	220u		**Q1**	J201
R8	680R		**C8**	22u		**Q2**	J201
R9	820R		**C9**	270p		**Q3**	J201
R10	47K		**C10**	22n		**Q4**	J201
R11	56K		**C11**	22n		***DPDT**	On-On-ON
R12	1M		**C12**	270p		**D1**	Status LED
R13	1k8		**C13**	100u		**D2**	1n4001

Build Notes:
Make certain you have verified J201 FETs. Available at GuitarPCB. Chinese counterfeits are no good. Kits from PedalPartsAndKits (USA) and Das Musikding (Europe) **also contain verified J201 FETs**.
Adjust Bias by using Trimmer 1 for Drain of Q1. Trimmer 2 for Drain of Q2. Trimmer 3 will adjust the Gate of Q3 and Drain of Q4 simultaneously. You will want about 4.5v to 5.5v on all lead measurements.
Use sockets for all transistors for easy testing, exchanging, switching or troubleshooting purposes.

You may bypass channel switching by wiring a jumper from the empty pad just above **T pad** on the **[IN]** Pads to the **T pad** on the **[IN_BRT]** section. This will only let you use both channels at the same time.



Controls:

Volume: The best setting which is interactive with the Gain Control is just past unity volume - usually around 2:00. If you are looking for cleaner tones then turn the Volume up full and the gains back.

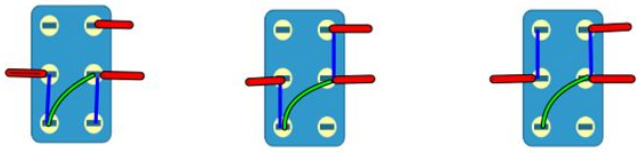
Gain: Best settings are from 3:00 to max for the best heavier tones. But for a cleaner response you may want to try lower gain settings. The Sunn™ amp was also known for its clean power for many styles. As mentioned the Sunn T is also known for using a RATT or Muff'n in tandem for heavier tones. See video

Tone Controls: The three bands of the tone section are set up so it will be best for you to start with all three tone controls at the midpoint and adjust from there. You are sure to find a tonal setting that is just what you want!

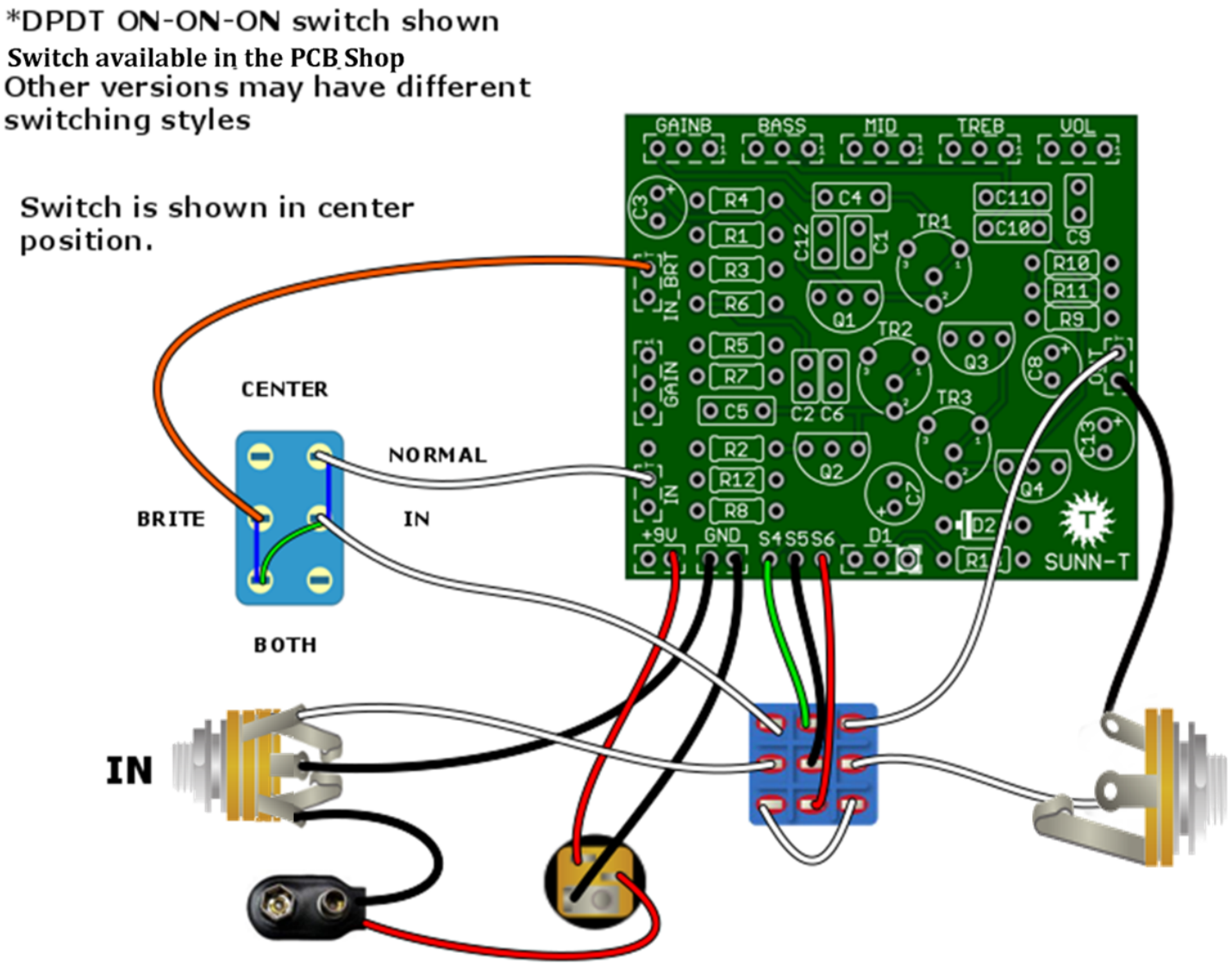
***Regarding Channel switching use a DPDT On-On-On switch.**

These come in assorted switching patterns.

The Blue Lines in the image on the next page represent where to place the DMM in Continuity Mode to determine which switch pattern your switch uses. This is relatively easy however you may use our online Support Forum.

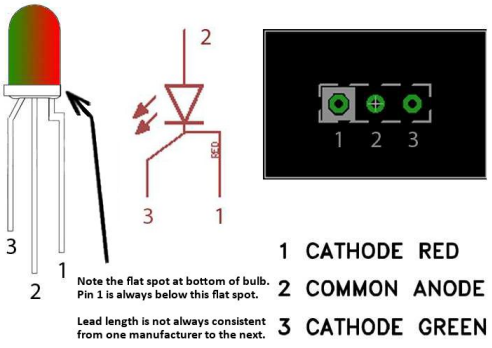


Blue lines <u>represent switch patterns</u>, not jumpers.
Test the switch pattern of your DPDT switch using your Digital MultiMeter and wire accordingly.



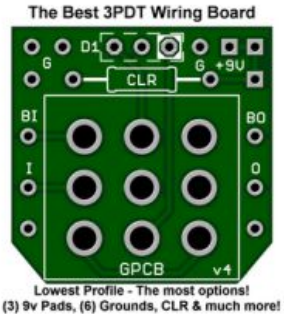
STATUS LED

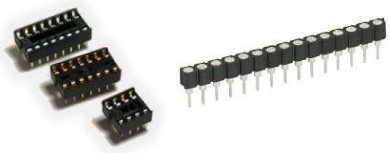
D1 is a common anode bi-color LED. The diagram at right shows the pin-out, schematic symbol and pad connection for a common anode LED. The pin-out for the bi-color LED is typically (but not always) as follows: **The lead 1 pad on the circuit board is marked with a white box.**

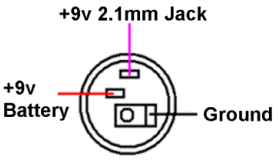


When connected correctly, the LED will light red when power is applied and the circuit is in bypass mode. The LED will light green when in effects mode. **If you wish to use a standard LED, connect the anode to the middle pad and the cathode to the right (non-white) pad to show the circuit in effects mode.** If you use a 3PDT wiring board that includes an LED, you can omit this LED and R13. *R13 is the LED's Current Limiting Resistor (CLR). If you use a different LED, you may want to change this value to adjust LED brightness.

If you are using one of GuitarPCB's handy 3PDT wiring boards, pads S4, S5, S6 and D8 would be ignored and R13 would not be installed. See wiring guide below for reference.







[Soldering Tutorial on Youtube]

Need a kit? Check out our authorized worldwide distributors:

USA – Check out [PedalPartsAndKits] for all your GuitarPCB kit needs in the USA.

Europe – [Das Musikding] Order either boards or kits direct from Europe.

[PedalPartsAustralia] - Order either boards or kits direct from Australia

If they do not have a KIT listed send them a note asking if they can help you out.